

What is claimed is:

1. A fuel cell system comprising:

a fuel cell which generates electric power based on hydrogen and a oxidant gas supplied from the outside;

a hydrogen gas supply flow path for supplying hydrogen to the fuel cell;

a hydrogen off-gas circulating passage for returning the hydrogen off gas from said fuel cell to said hydrogen gas supply flow path;

a hydrogen pump for boosting the hydrogen off gas mounted in said hydrogen off gas passage;

a hydrogen off gas bypass passage for returning the hydrogen off gas in the hydrogen off gas passage to said hydrogen gas supply flow path;

an ejector for sending the hydrogen off gas to the hydrogen gas supply flow path.

2. The fuel cell system according to claim 1, wherein a back pass check device is provided at said hydrogen off gas bypass passage for checking back flow of the hydrogen off gas.

3. The fuel cell system according to claim 1, wherein said hydrogen off gas circulation passage and said hydrogen off gas bypass passage are connected to the intake side of the ejector.

4. The fuel system according to claims 2, wherein said back flow check device is a check valve, which is controlled in response to the driving state of said hydrogen pump.

5. The fuel system according to claim 4, wherein said check valve is controlled so that it is closed when the rotation speed of said hydrogen pump exceeds a predetermined rotation speed, and is controlled so that it is opened when the rotation speed of said hydrogen pump falls below a predetermined rotation speed.
6. The fuel cell system according to claim 2, wherein said back flow check device is a check valve, which is controlled to be a closed state when the outside temperature is above a predetermined temperature and which is controlled to be a open state when the outside temperature is below a predetermined temperature
7. The fuel cell system according to claim 2, wherein said back flow check device is a check valve, which allows the hydrogen off gas to flow into said ejector from said hydrogen off gas bypass passage, and which checks the hydrogen off gas from flowing from th ejector to the hydrogen off gas bypass passage.